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Medical Times

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The Chemical Basis of Inheritance
Management of Thrombophlebitis
Irritable Colon • The Frigid Wife
Notes from a Case Book
A New Medical Center

Medical Book News

Editorials

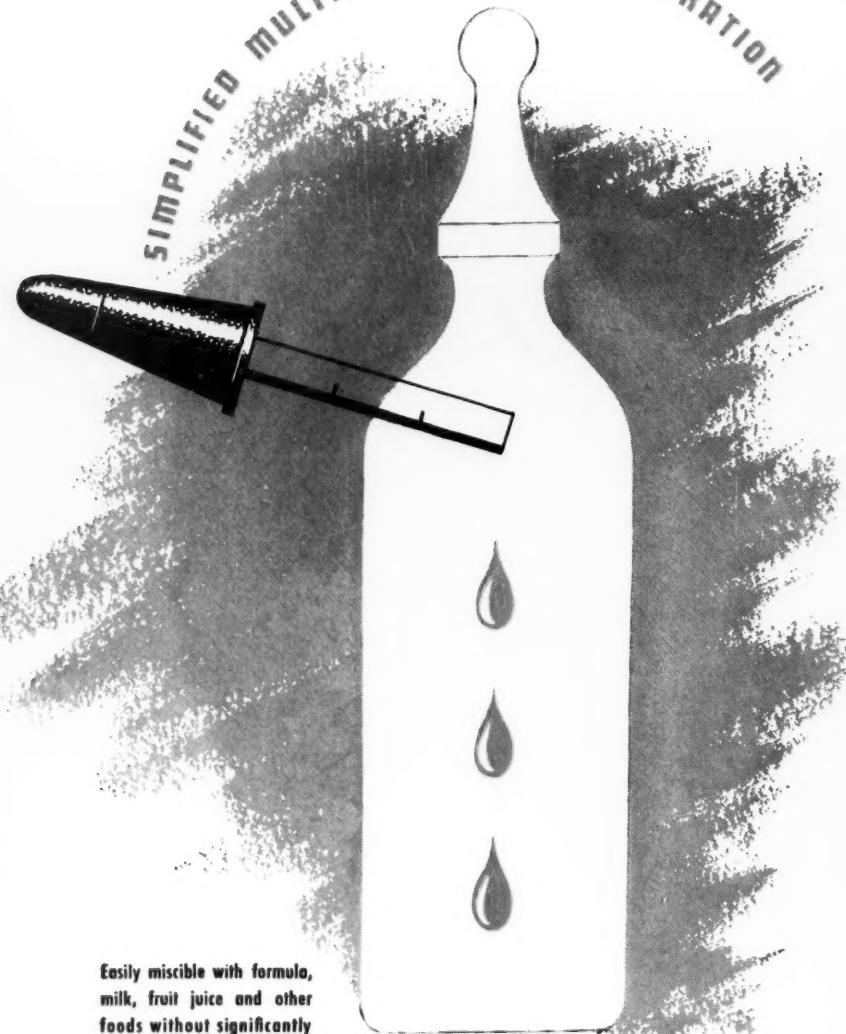
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EDITORIALS

Announcement

IT is a pleasure to announce Doctor Henry E. Utter's acceptance of the Pediatrics editorship. Dr. Utter is Visiting Pediatrician at the Rhode Island Hospital; Chief of the Pediatrics Staff, Providence Lying-in Hospital; Consulting Pediatrician, Charles V. Chapin Hospital and Sturdy Memorial Hospital, Brattleboro, Massachusetts. He is a member of the American Academy of Pediatrics and of the New England Pediatric Society.

Forces Behind the Nationalization of Medicine

ACCORDING to Waldemar Kaempffert, science editor of the *New York Times*, science and industry are exploited by a new caste of experts, who finance and control production and consumption. This mechanized culture involves a leveling and standardization of the masses. Of course, says Kaempffert, there is nothing democratic in the philosophy of this powerful caste itself. The masses are convinced [or have been convinced] that science and technology are good in themselves and that their development is not incompatible with democracy.

Much of our legislation is the work of pressure groups, not acting in the interest of the people as a whole. Obviously, the controlling caste of Kaempffert is the most powerful of such groups.

The nationalization of medicine would logically consummate the over-all control of the masses by such a caste.

It may very well be that the socialization of the masses will best attain the serfdom which is the objective of the controlling caste. This caste would care nothing about the warning of Carr (*Nationalism and After*, Macmillan Company, 1945): "When socialism is applied within national frontiers it destroys . . . international



cooperation . . . and tends to strengthen national rivalries and antagonisms."

Harvey's Ghostwriter (?)

CESALPINUS, believed by many to have discovered the general circulation

of the blood about fifty years before Harvey, is again the subject of a searching inquiry by Arcieri (*The Circulation of the Blood*, New York, Vanni, 1945), in the course of which all the sniping against Cesalpinus, it seems to us, is effectually disposed of.

Corwin, of the Mayo Clinic (*Proceedings*, October 20, 1937) has also joined the ranks of those who believe that to Cesalpinus should fall the credit of being the first to recognize and demonstrate the general circulation of the blood.

Among Arcieri's points of interest is the charge that the Latinization of both Harvey's *De Motu Cordis* and *De Generatione Animalium* was done by his friend Sir George Ent, whose close relations with Harvey were emphasized by Dryden in his poem "To My Honored Friend, Dr. Charleton":

The circling streams, once thought but pools,
of blood
(Whether life's fuel, or the body's food)
From dark oblivion Harvey's name shall save;
While Ent keeps all the honor that he gave.

It would seem that our modern era has no exclusive claim to those dubious phenomena, the ghostwriter and his sponsor.

According to Aubrey, chronicler of the times, Harvey did write a very bad Latin. The Notes for his Lumleian Lectures, now in the British Museum, bear this out. There appears to be no doubt as to the writing of *De Generatione Animalium* by Ent.

Cesalpinus has not had the luck of Aristarchus, the Greek astronomer who mastered the heliocentric hypothesis before Copernicus; nor of Alfred Russel Wallace, who formulated the doctrine of natural se-

lection before Darwin; nor of Hooker, Hobbes and Locke, who anticipated Rousseau's theory of a political society based on a compact among individuals; nor of Cavendish, who is conceded to have been familiar with discoveries usually associated with Coulomb, Faraday and Ohm. To all of these priority is granted, and nobody today would think of denying it to them. Yet the claims of Cesalpinus as presented by Arcieri and many others are equally good. It would sometimes seem as though the Anglo-Saxon world were determined to uphold the Harveian dogma "by hook or by crook," an attitude which tends to destroy one's faith in the impartiality of scientists in such matters.

Coral Builders

THE medical man is bound to think of his own ethical standards with respect to scientific freedom and the sharing of new knowledge when he hears the discussion of such things in the sphere of atomic energy.

Such discussion now seems academic in the light of the probabilities regarding the atomic warfare sure to follow a breakdown of the United Nations Organization within five or ten years.

From our own corner we have to realize the possibility of the annihilation of medicine itself along with all the other achievements of man—and of man himself.

The individual with a mouthful of teeth reminiscent of a putrid latrine who stupidly resists the proper management of consequent systemic pathology symbolizes mankind failing properly to avail itself of antidotes to atomic poisoning.

Man, a very recent phenomenon on the earth, is much like the Coelenterata, those sea animals which, lowly organisms though they are, build coral structures of eerie beauty.

Man's creations, such as medicine, are greater than himself. Their loss would be more lamentable than the annihilation of mankind. The stature of the strange creature, man, is infinitely smaller than the sum of his works. But his greatest work,

the atomic bomb, seems about to destroy him. This is the greatest of all paradoxes.

The Petit Mal Club

IN a recent review of Margaret Cole's biography of Beatrice Webb, wife of Sidney Webb, George Bernard Shaw describes the walking and bicycling exercise taken by the Webbs. In the course of the description Shaw says that bicycling was followed for many years "until Sidney's odd habit of fainting occasionally, without symptoms or sequels, overtook him one day on his bicycle—and she, riding as usual ahead of him and missing him, rode back and found him comfortably unconscious in the ditch with nothing else the matter with him."

This clinical report on the British scholar suggests possible eligibility for membership in the group of famous men who down the ages have exemplified petit mal.

The Gastric Content in Tuberculosis

FIELD has pointed out (*American Review of Tuberculosis*, December, 1944) that the morning culture of the gastric content in the fasting patient with suspected active tuberculous lesions but with negative sputum should be resorted to more and more. Smears are unreliable. An additional refinement is guinea pig inoculation, although culture suffices in most cases.

If positive, the patient should be treated exactly like one with a positive sputum, since he may develop a positive sputum in time.

This procedure is especially useful in suspected patients who deny raising sputum or whose sputum is negative. Its value in diagnosis and therapy, and in determining fitness for discharge, is obvious.

At least five consecutive aspirations may be required before a decision can be made.

The cultures usually show growth within six weeks.

The reliability of the procedure is not invalidated by the fact that there may be negative gastric content and positive sputum.

MANAGEMENT OF THROMBOPHLEBITIS:

Case Reports

Louis Edward Fazen, Sr., M.D., F.A.C.S.

Louis Edward Fazen, Jr., M.D.
Racine, Wisconsin

DURING the past decade we have seen the plan of management of thrombophlebitis change in many ways, utilizing recent improvements in surgery and chemotherapy and popularized by Ochsner,¹ Homans,² de Takats,³ and others.

Much concerning the etiology of thrombophlebitis is unknown, but many factors have been incriminated including vein injury and infection, venostasis, dehydration, obesity, and anemia. Many of these factors may be present concomitantly, especially in postpartum and postoperative periods.

Two types of thrombosis may be differentiated clinically; a noninflammatory venous thrombosis, called phlebothrombosis by Ochsner, characterized by edema and cyanosis of the extremity, but absence of pain, local tenderness and systemic symptoms; and true inflammatory thrombophlebitis which begins with fever and tenderness over the involved veins and a positive Homans' sign (elicitation of pain in the calf on passive dorsiflexion of the foot) which is followed by chills, leukocytosis, cyanosis and lowered skin temperature of the extremity, pain and edema. Arterial pulsations are less distinct on the affected side due to reflex vasospasm.

The most serious complication is pulmonary embolism which follows dislodgment of a poorly-fixed thrombus and occurs most frequently with the noninflammatory phlebothrombosis. In general, the greater the pain and tenderness in the extremity, the less is the danger of embolism.

The pathology usually originates in an inflammation of a vein segment, followed by partial or complete thrombotic occlusion and proximal and distal extension of the thrombotic process. Along with this occur vasospasm, pain and edema. Associated lymphangitis increases the edema.

THE objects of present day therapy are to prevent pulmonary embolism, to release vasospasm and the associated pain

and edema, to prevent extension of the process, to control the inflammation and infection, and to avoid sequelae, especially the chronic disability that accompanies permanent edema and subcutaneous fibrosis.

Chemotherapy⁴ used early in thrombophlebitis may result in complete resolution of the process. In fact in several instances, such as thrombophlebitis migrans, pelvic thrombophlebitis, and thrombophlebitis in the upper extremities, we rely entirely on these antibacterial and anticoagulant drugs. Sulfonamides and penicillin need no emphasis as to their value in combating infection and their use here follows the same indications and safeguards as elsewhere. Anticoagulants do not prevent embolism, but are effective in limiting extension of the process. Of these agents, dicumarol is cheap and effective, but there is an undesirable lag in action of about thirty-six to forty-eight hours after oral administration and its duration of action is variable. Immediate effect is obtained with intravenous heparin solution, but maintenance of heparinization is expensive and troublesome. Heparin administration may become simplified by its incorporation with other substances to retard absorption, such as is offered by the Loewe technique of subcutaneous heparinization using Pitkin Menstruum which is a gelatin-dextrose solution.

Paravertebral lumbar sympathetic block is mainly indicated in conjunction with chemotherapy in the early conservative treatment of femoral and femoro-iliac thrombophlebitis. A successful novocaine block effectively relieves vasospasm and its accompanying symptoms of pain and edema. Following its use, fever subsides rapidly as a rule and the patient becomes comfortable and ambulatory. The technique of injection is simple and consists in the injection of 10 cc. of one per cent novocaine on the anterior-lateral surface of each of the upper four lumbar vertebrae. Within about ten minutes, the pain is re-

lieved and the extremity becomes warm and dry.

Another simple, easily performed procedure is venography, which may aid in localization of the process and may demonstrate vasospasm when studies are made before and after lumbar sympathetic block. Bilateral venography⁵ is indicated and will demonstrate at times a previously unrecognized thrombosis on the uninvolved, symptomless side. The results, however, are frequently inconstant and difficult to interpret. Any good vein on the dorsum of the foot or the subcutaneous vein over the lateral malleolus may be used. The foot is elevated on a six-inch block and internally rotated and twenty cubic centimeters of thirty-five per cent diodrast is injected slowly. A rubber tourniquet is placed about three inches above the malleolus just tight enough to compress the superficial veins and force the diodrast into the deep veins and a 14 by 17 film is taken at completion of the injection.

Prevention of pulmonary embolism and rapid regression of the thrombophlebitis usually follows ligation of the involved veins. Bancroft⁶ in a recent publication advises ligation proximal to the clot up to the level of the inguinal ligament and suction thrombectomy if the clot extends above the inguinal ligament. Postoperative anticoagulants are indicated to prevent phlebothrombosis in the ligated proximal stump. A warning against ligation of the common femoral vein is sounded by Homans,⁷ due to unsatisfactory collateral circulation at this level. He advises ligation of either the superficial femoral vein or the common iliac vein depending on the height of the thrombosis. Ligation of the vena cava⁸ is probably indicated in the presence of bilateral thrombosis to the level of the inguinal ligaments. Shackelford and Whitehill⁹ report good results in a case following ligation of the left common iliac vein at its junction with the vena cava. In cases of long-standing deep thrombophlebitis of the leg, Buxton, Farris, Moyer, and Coller¹⁰ employed ligation of the femoral vein with good results. In one case subsequent ligation of the vena cava was carried out. Lumbar sympath-

tomy¹¹ is sometimes required in chronic cases to produce prolonged vasodilatation. Adams¹² advises against early operation, since most cases respond to general measures, anticoagulants, and lumbar sympathetic block. A sublethal pulmonary embolism constitutes a positive indication for immediate ligation.

Case 1:

A N obese white woman, aged 43, underwent a supravaginal hysterectomy on March 12, 1945 due to fibroid uterus with menorrhagia and metrorrhagia. Her post-operative course was smooth and uneventful, except for fever to 100.4 on several occasions for three days immediately post-operative and several rises to 99.2 during her last four days. She was discharged on March 25, 1945 without complaints; at this time Homans' sign was negative bilaterally. The patient was readmitted two days later complaining of pain in the left calf with swelling of the left lower leg. Her temperature was 101.6, left leg pale, moderate dependent pitting edema noted, and Homans' sign was positive. She was treated by oral administration of sulfamerazine and dicumerol and she received lumbar sympathetic blocks on March 28 and 30. After the initial block, the edema permanently disappeared and the temperature rapidly subsided. She obtained immediate relief of pain with mild aching of the leg noticeable during the following forty-eight hours. There was no recurrence of pain or aching after the second block, and she was discharged April 1, 1945 and has remained symptom-free since.

Case 2:

A WELL-DEVELOPED, white woman, aged 50, was admitted January 21, 1945 with a history of long-standing deep phlebitis of the left leg. Her original attack had occurred five months previously without apparent cause, and she had been treated with dicumarol, sulfonamides, and lumbar sympathetic blocks. On admission she complained of constant aching, pain, and swelling of the left leg. Moderate dependent pitting edema was present in the left leg and Homans' sign was posi-

tive on the left. Her temperature was 99 and blood and urine were negative. She was operated on January 22, 1945 and the left superficial femoral vein was ligated; at which time a thrombus was found extending up to, but not past, the profunda femoral vein. Her symptoms subsided considerably, but not entirely, and she was discharged February 8, 1945. She improved steadily at home and was quite comfortable with only slight edema of the left foot when in April she complicated the picture by falling and fracturing the left patella. The fracture was successfully treated by application of a plaster cast and she again steadily improved at home.

*Case 3: (presented through courtesy of
Dr. H. C. Miller and
Dr. R. M. Kurten)*

THIS patient, a 30-year-old white woman, was delivered of her fourth child, a six-pound-ten-ounce female, on July 23, 1944. Her blood revealed a marked anemia with hemoglobin of 6.9 grams or 40 per cent and 3,000,000 red blood cells. Three transfusions of 500 cc. each were given and the hemoglobin rose to 11 grams or 68 per cent. Three days postpartum she developed an acute frontal sinusitis with headache over her eyes and temperature to 104.2. This process gradually subsided with penicillin therapy and nasal packs and she was discharged from the hospital August 6, 1944. On August 10, 1944 she was readmitted with a temperature of 99.6, complaining of aching and pains in the legs, pelvis, and chest, most pronounced on the right side. No edema was present at this time and a diagnosis was made of right femoral thrombophlebitis. Treatment was instituted with heparin and dicumarol. On August 12, 1944 at 4 P.M. the patient experienced a sudden pain in the right chest posteriorly, but had no cough nor expectoration. She was operated on the same day at 6 P.M. under spinal anesthesia. The external iliac vein was opened, a large clot was removed and the vein was doubly ligated. The superficial femoral vein was also ligated. The clot appeared to extend proximal from the great saphenous vein. Her postoperative

course showed steady improvement until August 28, 1944 when she developed an acute left femoral thrombophlebitis and her temperature jumped to 101.6. Treatment was started with dicumarol and sulfadiazine and again she made steady, progressive improvement, and was discharged from the hospital October 7, 1944. She received dicumarol for one month following the original attack of thrombophlebitis and her prothrombin levels ranged from 15 per cent to 60 per cent of normal.

Conclusions:

1—Prophylaxis against thrombophlebitis is of considerable value, especially postpartum and postoperative, and includes early exercise, early ambulation, elevation of the foot of the bed, and on occasion elastic bandages to the extremities from toes to groins.

2—Conservative treatment is still the best method early in thrombophlebitis and includes chemotherapy, anticoagulants, and lumbar sympathetic block.

3—Ligation of the involved veins as high as necessary is indicated after the first sublethal pulmonary embolism or with failure of conservative therapy.

4—Venography may be a valuable adjunct to study, especially for localization of the process, but its accuracy of interpretation is questionable.

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729 MAIN STREET.

IRRITABLE COLON

Experience with 122 Cases in an Army General Hospital

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THE problem of irritable colon is one of considerable importance in military medicine. It is well known that such factors as physical or mental stress and highly seasoned, greasy or fried foods are paramount in aggravating this condition. Since these factors are an unavoidable part of military life, it is not difficult to predict what effect entering the Armed Forces will have on the patient with an irritable colon.

The experience gained over a 10-month period with 122 cases of irritable colon in this Army General Hospital substantiated the prediction. Army life, particularly in combat outfits, aggravated the symptoms of these patients to such an extent that repeated hospitalizations were not uncommon. Although the rest and diet provided by admission to the hospital usually relieved their symptoms, return to duty often brought about a prompt exacerbation. Consequently, it became necessary to reclassify many of them, with the recommendation that they be placed in positions requiring less physical and mental strain.

It is the purpose of this paper, therefore, to report this experience with irritable colon, and to emphasize the need for proper vocational classification of these patients when they return to civilian life, as well as while they are in the Army.

Clinical Picture

Incidence: Irritable colon occurred second only to duodenal ulcer in the incidence of gastro-intestinal admissions to this hospital.

It constituted 13.3 per cent of the cases of gastro-intestinal disease, and 3 percent of all of the cases admitted to the Medical Service.

Symptoms: The history given by these patients was a typical one of intermittent bouts of crampy abdominal pain, with alternating diarrhea and constipation, usually aggravated by meals and physical or mental stress. The majority of those who had had symptoms previous to entrance into the Army noted an increase in the intensity of their complaints with military life.

In most cases the symptoms were of long standing (see table 1). Eighty-seven patients had had their symptoms for more than one year, and 49 had had them for more than 5 years. In 74 cases the onset of symptoms occurred before the patient's entrance into the Army.

The symptoms ranged in severity from a mild state, which interfered only with intense physical exertion, to one which completely incapacitated the individual. The latter was distinctly in the minority.

The most constant symptom was abdominal pain (see table 2). It occurred in 119 patients, and was the chief complaint in 91. One hundred and eight patients complained of definite cramps. All parts of the abdomen were implicated, but the pain was most frequently located somewhere along the course of the colon.

Diarrhea appeared in the histories of 61 patients, and constipation in those of 44.

Table I	
Duration of Symptoms in 122 Cases of Irritable Colon	
Less than 1 year	35
1 to 5 years	38
5 to 10 years	24
More than 10 years	25

The diarrhea occurred in short bouts of 3 to 12 watery bowel movements a day, which occasionally contained mucus, but never any blood (unless they had bleeding hemorrhoids).

Nausea was experienced by 25 patients, and vomiting by 31, probably indicating that in some instances the upper part of the gastro-intestinal tract was also involved in the irritable state.

In at least 77 patients meals or stress, either mental or physical, aggravated the symptoms. Pain appeared 15 minutes to one hour after meals and lasted varying lengths of time. Highly seasoned, greasy or fried foods were the worst offenders. Physical stress was often accompanied by pain, which soon subsided with rest. Mental stress, although just as important a factor, did not produce its effect as promptly. Toward the end of days or weeks of intense concentration or worry the severity of the whole symptom complex gradually became increased, and then longer periods of rest were required for relief.

Table II	
Incidence of Symptoms in 122 Cases of Irritable Colon	
1. Abdominal pain	119
2. Diarrhea	61
3. Constipation	44
4. Vomiting	31
5. Nausea	25

Physical Signs: Significant physical findings were limited to the abdomen and rectosigmoid (as seen proctoscopically). Abdominal tenderness was elicited in 112 patients (see table 3). In every case it was located somewhere along the course of the colon. Forty-three patients complained of diffuse colonic tenderness, while 40 others

had tenderness confined to the left lower quadrant. In 60 patients the colon was not only tender, but palpably spastic as well. This finding was noted over the descending colon in 53 of the 60 cases.

Proctoscopic examination frequently revealed important confirmatory evidence of the state of the colon. As the proctoscope was introduced definite spasm was encountered in the upper rectum and rectosigmoid region in 65 patients (92 were proctoscoped). When the proctoscope entered the spastic area pain was produced, and this pain usually simulated the crampy pain that the patient had described in his history. Large amounts of mucus were frequently seen within the bowel lumen in those cases with spasm. No other findings of note, except occasional mucosal congestion, were visualized.

Table III
Physical Signs in 122 Cases of Irritable Colon

1. Abdominal tenderness	112
2. Palpably spastic colon	60
3. Rectal and rectosigmoid spasm as noted proctoscopically	65

Laboratory Data: Laboratory examinations in these patients were concerned chiefly with ruling out other causes for their symptoms, although occasionally the barium enema was of value in confirming the diagnosis. The most important information was obtained from stool specimens* and x-ray investigation† by barium meal and barium enema.

Stool examinations were made on 78 patients. Seventy-six were negative. One showed cysts of *E. coli*, and the other a growth of *Salmonella paratyphosus*. Subsequent stool cultures on this last patient were negative, despite the continuation of his symptoms.

Gastro-intestinal series were performed on 72 patients. Eight showed an hyper-

* From the Laboratory Service of Lt. Col. Marris L. Rakieten, Med. Corps, A. U. S.

† From the Roentgenological Service of Capt. Peter J. Glanquinto, Med. Corps, A. U. S.

motile colon, one a redundant colon, and one an hypertrophic gastritis. The remainder were negative.

Seventy-one patients were examined by barium enema. Twenty had an area of spasticity in their colons. One had a redundant colon. The remainder were negative. These figures bear out the well known fact that the barium enema is not as reliable as the proctoscope in demonstrating spasm in this condition.

These procedures were not carried out on the remaining patients because of the administrative need for their rapid evacuation from the hospital.

Therapy and Disposition: Treatment consisted of rest, antispasmodics and a bland, low-residue diet. On this regimen 64 patients showed definite improvement, and 30 showed slight improvement. No change was noted in the others.

The most significant fact in this study was that 37 per cent (45) of these patients required reclassification to limited duty status. Thirty-nine of these 45 had had their symptoms for more than one year, and 23 for more than 5 years. Thirty-three of the 45 had experienced the onset of their symptoms before their entrance into the Army. Furthermore, 23 had had previous hospitalization for the same complaints.

The remaining patients, who were discharged to duty, were apparently able to carry on satisfactorily. Complete follow-up studies, however, were not available in this group.

Unfortunately, these patients are often marked as hypochondriacs and tossed from pillar to post before the significance of their complaints is recognized. In the process time, money and efficiency are lost. The figures noted above are ample proof that, despite its reputation of mildness, irritable colon is a condition which deserves respectful consideration in military medicine.

Discussion

In this brief study of irritable colon there are five points that bear emphasis:

First, the diagnosis of Irritable Colon is determined principally by the history. The only physical findings of importance are ab-

dominal tenderness, a palpably spastic colon, and evidence of spasm on proctoscopy. The barium enema occasionally offers confirmation when the irritable state is pronounced.

Second, it cannot be too strongly emphasized that other causes for these symptoms must be methodically ruled out before one falls back on a functional diagnosis. During the period when this group of patients was treated in the hospital there was an unusually high incidence of a mild form of amebiasis in the surrounding locality. The patients with amebiasis often presented a similar symptom complex. It is quite possible, despite thorough and repeated stool examinations to the contrary, that a few of these cases diagnosed as irritable colon actually had amebiasis. This is only one example of the pitfalls in diagnosis.

Third, once the diagnosis is established, it is important to explain to the patient that his symptoms are due to a functional state, and not to a disease which will progress and endanger his life. Those who gain insight into their condition are often more tolerant of their symptoms than those who do not.

Fourth, although these patients had not been in battle, most of them had participated in rigorous maneuvers, and all had experienced exacerbations under these conditions. It was reasonable to assume, therefore, that many of them would have made poor combat soldiers. Consequently, their proper reclassification was not only of importance to them, but to the functioning of their organization as well. In retrospect, at least where patients with long histories were concerned, many man-hours of work would have been saved by earlier recognition of the probable outcome and more prompt change of status.

Fifth, it is important to realize, nevertheless, that these individuals are not useless. When they understand the cause of their symptoms, and when they are assigned to duties which do not expose them to improper foods and severe stress, they can function satisfactorily as valuable cogs in an organization. Therefore, it is apparent that vocational guidance is of par-

—Concluded on page 30

NOTES FROM MY CASE BOOK—HYPERTENSION

George H. Hoxie, M.D., F.A.C.P.

Berkeley, California

THE measuring of blood pressure has been developed during my lifetime. The interpretations of our observations made by us all as we obtained new data may look funny in retrospect. But to us they were as important and conclusive as those being made nowadays, by our successors.

Yet I believe it wise to review and put on record some of these observations in order that the same paths do not have to be trodden again—and also to mitigate the cocksureness of the recent convert. So, to my "case book."

Of the 17 cases (in the collection of records brought into retirement with me) marked up during life as primarily cases of hypertension, 8 seemed to be cases of nervous tension, 7 seemed to rest on a renal basis, one seemed of hepatic origin, and 1 not watched long enough to be identified. Three of the 8 cases of nerve tension lived into the sixties. Of the 7 renal cases: one started with an eclampsia and showed much hepatic damage at the necropsy (at 37); one started with renal colic and ureteral stone; two were cases of renal tuberculosis; one turned out to be an arteriosclerotic kidney at necropsy; one died after thyroidectomy for thyrotoxicosis; and the other one, a railroad conductor, died at the age of retirement from apoplexy and no necropsy was secured. The hepatic case ended at about seventy with apoplexy.

This may be compared with the usual statistics such as those of Bell and Clawson, viz.—of 420 cases of hypertension coming to necropsy, 44.5 per cent died of myocardial insufficiency, 15.8 per cent of coronary disease, 19.5 per cent of cerebral thrombosis and hemorrhage, 11.7 per cent of accident or intercurrent disease, and 8.5 per cent of renal failure (*Arch. Path.* 1925).

So we must conclude that the mechanism of hypertension in middle life is not a simple one; and that many factors contribute to its development if not to its origin. The job of the physician still seems to be to treat the individual rather than the disease. This aspect of the syndrome is emphasized by the present wave of interest in the psychosomatic approach to hypertension, which, since it is personalized medicine, is all to the good.

Historically it is interesting to note that in several of my cases liver extracts were tried on an experimental basis with the knowledge and consent of the patient. In the group called "nervous," some lowering of the blood pressure occurred. But the high pressure returned after the cessation of the treatments and after sufficient time had elapsed for the elimination of the extracts from the system. The trial showed that at most the extracts merely neutralized the toxins and did not prevent their formation.

ONE of these histories affords profitable reading. It is therefore condensed and appended.

Protocol of a case diagnosed first as benign hypertension, then as angina pectoris, and finally as uremia, a case in which there were tried heparmone (liver extract), alkaline ash diet, low salt and low protein diet as well as the removal of focal infections, in spite of which the course of the disease proved inexorably continuous.

Dentist, bachelor, aged 45, complained of being tired and sluggish.

1919 B. P. found to be 165. Diet brought it to 150. Tonsillectomy.

1922 Prostatitis and albuminuria. B. P. 160-168. Life insurance refused.

1924 Wght. 165. B. P. 185-190. Tonsillar rests removed. Blood and

urine neg. (First time seen by G.H.H.)

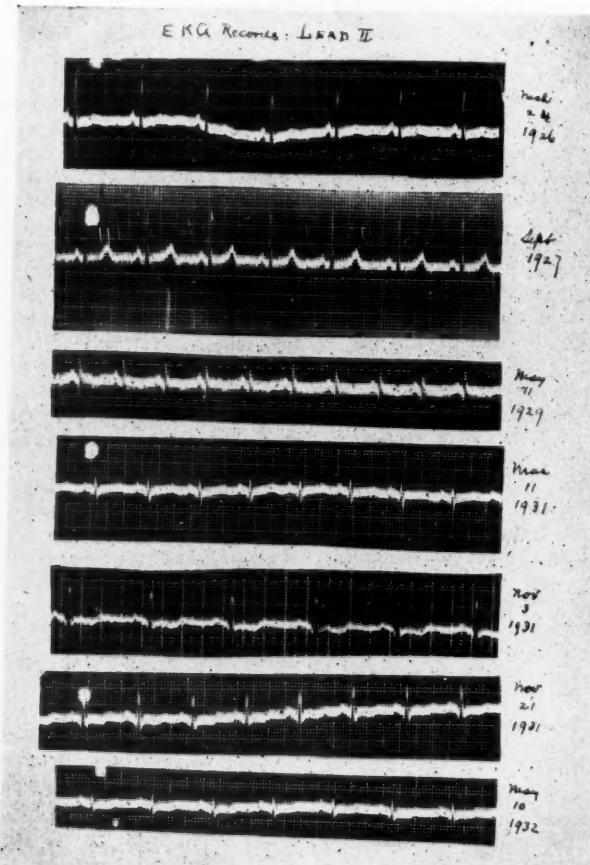
1925 B. P. 194/130. Blood sugar 125, uric acid, 5.3, creatinine 1.5, urea nitrogen 10, nonprotein nitrogen 25.

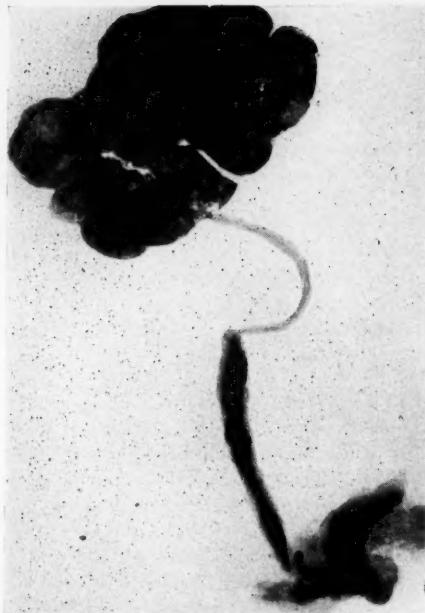
1926 EKG rate 72, regular, P wave normal, P-R interval .16 seconds, QRS upright in I and II and negative in III. Duration of QRS .06 seconds. Diagnosis: Left ventricular predominance with some myocardial damage. Prognosis: good. X-ray normal, dental sepsis, spastic colon. Dental extraction advised by a clinic.

Carried out in the next months.

1927 B. P. 190/110. Occasional extrasystoles, increased dullness at level of second costal cartilage. Heparmone injections started June 18, 1 cc. daily with occasional skips. B. P. dropped to 126 on the 29th (although the needle vibrated to 170). By July 15 the B. P. had risen to 150/100; by the 22nd to 172/130; heparmone resumed at 2-day intervals, then daily until September 10. But the B. P. was erratic: Aug. 1st it was 180/120 and

Case 1
*Electrocardiograms (lead 2) for the years
 1926-1932.*





Case 2

Calcified kidney with partly collapsed and partly calcified ureter.

on the 5th, 156/108. Then, after some right-sided abdominal pain with diarrhea, on the 15th it was 190/130. Injections were continued, 11 doses in Sept., 13 in October, and 7 in November. The final B. P. was 180/110 and the experiment was discontinued. (The administration of heparmone was an experiment, started with the patient's consent and cooperation.)

1928 Occasional dizziness. Pain in rt. intraclavicular region with a temperature of 96.5. Pain in chest on exertion. B. P. 180/120. In October he entered a hospital for rest and observation. The diagnosis was hyperpiesia. X-ray: function of gallbladder normal. Van den Bergh and sedimentation tests negative. Blood N.P.N. 31.6; urea nitrogen 15.21; creatinine 1.4; sugar 132; chlorides 450. B. P. after a few days of rest 150/100, but on right

arm the gauge showed 180/120. The x-ray of the heart showed only increased aortic shadow.

1929 In April he had 3 doses of heparmone, with a B. P. 210/130-200/120, but nevertheless angina developed after walking or other exercise. He went to a hospital for a rest. The EKG showed T downward in leads I and II, upright in III. Patient went to Seattle in summer to get under care of a physician who specialized in alkaline ash diets. In October when he returned the B. P. was 170/110. He developed a slight jaundice at this time.

1930 Again in St. Luke's Hospital for a rest on account of the return of his chest pain. His B. P. was 170/110. In March he had "eczema" and someone gave him x-ray treatments over the spine. Later he was given spleen liquid: 9 doses. B. P. 175/115. Later he returned to Seattle for dieting. In the fall he developed an intranasal ulcer with sinusitis. Urea clearance test gave 49.96 per cent of normal average function. The urine showed Exton 30 (albuminuria) with hyaline casts and 18.20 pus cells per high power field. The B. P. was 155/120-150/110. (Metaphyllin used.)

1931 Bronchitis developed during the winter. Operation on nose—without effect. By March he quit his work and went back home (in a country town). B. P. 170/120. Pulse 100. EKG.: S-T prolonged and almost iso-electric. In July he visited the Mayo Clinic and was given a diagnosis of coronary and hypertension heart disease with angina pectoris and paroxysmal dyspnea. B. P. 162/130-180/140. By November T was slightly negative in lead II. The patient entered the hospital for another rest. After discharge he used morphine two or three times a week, but usually got by with nitroglycerin. He went to Florida for the winter.

On his return he could saunter two or three blocks without pain. But

the angina came on unexpectedly and irregularly. Pain was in left arm. Heart tones negative. The urine showed bile and albumin (Exton 45). The blood tests gave sugar 43, N.P.N. 30, creat. 1.7, chlorides 500, serum calcium 14, urea nitrogen 14.4 EKG T., I and II neg. By fall there was orthopnea and pain, lumbodorsal backache. B. P. 180/130. Urine albumin Exton 360, broad hyaline casts, thick heavy mucus (10-20 pus cells).

1933 Worse as weather grew colder. Used phyllitin. B. P. 190/140. Urine showed albumin (Exton 480). He had to go to the hospital on March 2: oxygen gave some relief, but the circulation became worse. B. P. 160/140. Lungs became involved: râles; heavy, sticky, bloody sputum. Hiccups. Suppression of urine. Died March 11. The postmortem diagnosis read: Bilateral coronary sclerosis, myocardial fibrosis, beginning aneurysm of left ventricle, thrombosis of apex of left ventricle, hypertrophy and dilation of heart; multiple infarcts of lungs; healed infarcts of spleen; chronic interstitial nephritis; atrophy of liver; chronic pericholecystitis; dilation of stomach.

ONE other case deserves mention. It is that of a calcified kidney. The story shows the difficulty of the physician who sees the patient only at the end.

A widow of 40, saleswoman for 10 years, traveling saleswoman for 1 year, was referred on account of headache and morning vomiting. She said that she had had peritonitis 16 years before when 3 months pregnant, a salpingectomy 6 or 7 years later, and a hemorrhoidectomy 3 years after that. The blood pressure was ringing. There was a mass deep in the abdomen at the level of the pelvic crest. Uterus forward and negative. Reflexes sharp. T 98. P 88. Hb 90. Rbc 528000. Wbc 8300. Urine 1008, heavy albumin, sugar present, indi-

can present, also hyaline casts. Spinal fluid neg. Wassermann. Gold sol 1211000000. Cell count 1. Globulin neg.

The urologist reported only one functioning kidney, the left. "The right ureter was probably severed at an operation about 8 years before. The right ureter and kidney have so calcified that they cast a shadow like that of a pyelogram with opaque media."

She of course continued to suffer from headaches; then developed orthopnea, edema, enlarged liver, and died after some three months.

THE postmortem report (made in 1924) was summarized thus: "This patient's right kidney was entirely destroyed; apparently due to tuberculosis which was entirely healed. (The history reported that it was due to the cutting of the ureter at an operation—salpingectomy. There was no other evidence of tbc.—G.H.H.) The left kidney was definitely diseased and unable to carry on. The patient had very high blood chemistry figures and was evidently uremic. (The last report was NPN 18.1; urea nit., 76.9; uric acid 16; creatinine 6.5; sugar 163; sodium chloride 3.7.) The ulcers of the stomach we consider toxic, i.e., uremic. There was nothing to explain the infarcts of the lungs and thrombosis in the spleen, except the toxinemia."

In 1942 the pathologist looked up the sections and wrote: "I diagnosed the remaining kidney as chronic glomerulonephritis. I would not now call it that. Am now of the opinion that this patient had unilateral ischemia from the tuberculosis and that produced hypertension; and the remaining kidney showed arterio- and arteriolosclerosis; that the findings in the glomeruli, tubules, etc., are secondary to the vascular changes." He thought that there must be also extrarenal factors for the production of the hypertension.

And so even in such a case our psychosomatic brethren have the last word.
2600 RIDGE ROAD.

ADVICE TO THE FRIGID WIFE

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II

THE purpose of this paper is to present the discussion of the potential sex problems of a wife in terms and phrases which are suitable, acceptable, and understandable to her.

It is presented as an integral part of the consideration of Part I of "The Frigid Wife" (*MEDICAL TIMES*, December, 1945). However, the general approach, basic facts and terminology will be found to be a helpful and, indeed, necessary part of a discussion of sex problems; either in pre-marital advice—or to the wife who desires advice on sex problems other than frigidity.

There exists a peculiar attitude toward marital sex advice. Because it is not the advice for all (young, unmarried, etc.) and because it is not to be presented as the typical parlor conversation, it is often considered entirely taboo. This is unfortunate—for much good can be accomplished if the facts are properly, tactfully, and scientifically presented.

A DEFINITE effort is made here to present the subject as if talking to the wife. It is hoped that it may prove helpful to the physician who is less familiar with such a presentation, so that he may better visualize the situation, and even help him to select words for the discussion and instruction.

This is marital advice. The sanctity and security of the home is held paramount.

It is often considered that any discussion on the sex problem is presented to give justification or excuses for special privileges.

Not so here.

A schoolboy, when asked to define polygamy, said, "More than one wife; one

wife means monotony."

It is, more often than not, the responsibility of the wife to see that this is not true!

Thorough investigation in the form of a full, general and sexual history and complete examination should be made by the examining physician. This is essential in order that he may determine the general health, menstrual and pelvic status, etc.

Complaints and questions should be carefully investigated.

There is a technique that is essential in talking with a wife or wife-to-be concerning her marital problems. At times it is wise to refrain from presenting the subject too fully at the first interview—unless, of course, the wife insists. Each is an individual case and should be treated as such.

Instead of completing the subject in one visit—and then considering it closed—bring up the subject repeatedly so that she may present her ideas. Frequently, she will volunteer the important information or clue for the continued discussion. For example: "I know that I have not been right," or, "It seems to me that I may be at fault," or, "It is my mental attitude" are all familiar phrases.

Frequently, patients will say, "I appreciate your interest, sincerity and help," or, "Nobody else has ever given me an opportunity to talk about this problem; nor have they had anything to offer in the way of help."

INSTRUCTIONS should be given emphatically and positively; pointing out the importance of the sex life; the proper attitude; what troubles and ills have been caused by an improper attitude—and what can be expected as the result of a proper point of view.

Negative attitudes have been frequently

Part I, *The Frigid Wife*, appeared in the December, 1945 issue of the *MEDICAL TIMES*.

imbedded in women during childhood. Positive suggestions are needed in such cases to overcome resulting wrong attitudes and inhibitions. Frequently, a woman asks herself, "Why should I bother?" or "What can I do? That's the way I feel—and I just can't help it."

It is essential that the physician succeed in replacing these immature impressions with mature ideas and more wholesome attitudes. He must, however, bear constantly in mind the importance and necessity of re-instruction; of repetition; of repeating the same thought as a valuable and basic idea in this type of "advice" and "education."

Plain, simply expressed advice, stating some of the frequently found subconscious fears and thoughts of a woman, will help to crystallize the inescapable facts which do exist in certain homes.

Speaking bluntly and boldly of infidelity does not limit the directive motive of this discussion to a certain "immoral" group. There are urges which are universal and which are held in check by very necessary moral standards and restraints.

The basic urge exists. It should be recognized, admitted and utilized by the good, right-thinking wife to aid in establishing security in the home.

It has long been the contention of the writer that the proper scientific (carefully given) advice from a physician, following a thorough physical examination and history, and in which all anatomical and physiological facts are considered, can do far more to control and correct abnormal sex habits and behavior than the whole list of exhortations on "moral standards," "sanctity of the home," etc.

The place of the right-thinking, well-prepared physician in this matter can not be taken by anyone else.

To The Wife (or Wife-to-Be)

THIS is an extremely important step which you are taking. It is not easy for you, but it will prove helpful—and you will be glad of your decision. You should not feel the least hesitancy or embarrassment in presenting your problems or questions—and you should see to

it that the answer which is given to you is clear and complete.

If you learn (and use) but one thing here, your time will not have been wasted. That one thing is: *There is an answer* to your sex questions and problems. The solution may not always be easy, but it is a medical problem; a physical problem—and the scientific answer should be sought. It is not necessarily a vague—or an evasive—answer. There are certain definite facts which have been established. You do not have to stumble along and make the same mistakes that thousands of others have made. You may ask advice from those who have studied these problems and failures.

It would be just as foolish for you to try to learn blindly, by the trial and error method, as it would be for you to try to build a house without proper knowledge or advice. You may say, "I'll just build a house or two; they may fall down, but I'll just keep on trying and then, if I don't succeed, perhaps I'll ask advice." To keep on trying blindly until the structure of a marriage becomes uncertain or starts to fall is a wasteful and dangerous procedure.

Marriage is, after all, the foundation of our social and moral life.

You should know the causes of divorce before you marry. What right do you have to think that your union may not be threatened by the same problems which have broken up many other homes?

Philosophers have reminded us that the same factors and forces are at work in the castle and in the peasant's hut; among the rich and among the poor; the privileged and the underprivileged. These forces may be better controlled, less visible; they may express themselves differently—but they are present.

Acquaint yourself with them.

THE chief causes of divorce have to do with: 1. Sex, 2. Finances, 3. Liquor, 4. "In-laws" (or others who may project themselves into your life). These, in clear-cut form or modified, are the causes of trouble in more than 95 per cent of marital troubles.

The order of frequency is usually as

listed; the first being by far the greatest offender.

It is interesting when investigating this problem to find the frequent answer: "The cause of our divorce? Do you want to know the real cause—or the reason we gave at the divorce court?"

Under the general heading of sex problems as a cause of divorce are: 1. Infidelity, 2. Too many repeated pregnancies, 3. No pregnancies at all, 4. No response to or enthusiasm about sex on the part of the wife—or actual resistance.

Sex problems do not necessarily mean infidelity. You, as a good wife, should not think that you are constantly fighting infidelity. The average husband is faithful; wants to be faithful, and is going to be faithful—but it is not clever of you to see how much he will tolerate or how long he can be tempted. You, as a wife, are the only one in the world who has the right to consider and appeal to your husband. If you neglect this, something which your husband considers very important is being neglected. It is not so important as some men consider it, but neither is apple pie. Yet, you good wives are very anxious to know what foods are desired, and you are usually very energetic in your efforts to satisfy your husband's food preferences.

But men do not leave home because the biscuits are cold!

The matter of sex adjustment is the one thing—and the *only* thing—that you, as a wife, can do for your husband that no one else in the world has a right to do. Someone else can press his clothes, arrange the house, cook his breakfast, dinner or supper—and you will pay someone to do these things. But you will do your utmost to see to it that this other matter, this matter of sexual adjustment, is neglected!

It doesn't make sense!

Men are not being excused for extramarital affairs. Such behavior is wrong. History and experience prove that security in the home can not be established and maintained by such behavior.

However, many a man thinks that he has a legitimate excuse for extramarital activities when there is continued resistance or indifference at home. He does not

find either resistance or indifference when he goes elsewhere. Neither does he have to beg. It is not clever of the wife to make things more difficult and less interesting and attractive at home.

Infidelity does exist, even though it may not touch your home. If it breaks up some homes, the factors involved may make your own home extra-happy—or completely miserable.

We have no desire to over-simplify the matter. We do not deny that there are "husband playboys" whose urge for investigation and conquest is strongly tied up with their ego; often of braggadocio tendencies. Unquestionably, there are such men, but the number would be reduced if the wives would take cognizance of the facts involved and would cleverly adapt themselves before it is too late.

THE clever wife will see to it that she has all of the scientific information that is available on planned parenthood.

There are methods available for those whose religious belief recognizes only certain methods. There are advantages and disadvantages to each method. There are also many bits of detailed advice which may help the wife in her adjustment to certain of the more effective methods. She should return for future advice or adjustments.

The childless couple brings up a problem for careful investigation and advice. The problem rests squarely on the shoulders of the physician—provided, of course, that the couple is cooperative. It should not be dismissed with a casual examination and such advice as, "I see no reason why you should not become pregnant." The most minute, careful, methodical examination, scrutinizing all of the factors involved (in both the husband and wife) is the physician's inescapable responsibility.

The topic is considered here chiefly because of the psychological factors which are involved. Hope should be offered, if it is justified, after investigation. The sense of stigma, fruitlessness, and failure must be dealt with in many of these cases.

Illustrative cases of certain complicated instances may be helpful:

We have had cases where the wife was

afraid to have a child because she was afraid of losing her husband's affection. One specific case was the second wife and the husband's first marriage had failed after the birth of a child.

If there is a physical reason why you may not become a normal wife or mother, due to the possibility of pain or abnormal fears or other factors (usually pelvic), you should know it promptly.

This applies both to the bride-to-be and to the wife of many years. Especially is this investigation important before marriage—or following childbirth, an operation, or pelvic inflammation.

A careful, detailed history and pelvic examination usually reveals any such existing trouble.

If pain is a factor, it should be definitely stated by you as the consulting wife and investigated and corrected by the physician.

There is sometimes dissatisfaction on the part of the husband, without the wife being aware of it.

Painful intercourse may come from a number of causes; varying from spasm of the vaginal outlet, firm or painful hymen, to tumors, inflammation or misplaced womb. Inadequate lubrication may also cause pain.

If the trouble is pain, a slight operation often corrects it. The wife should be made to realize that it is not clever for her to allow her first impression of sexual intercourse to be associated with pain. It may make it more difficult for her to become adjusted to married life later, if pain is allowed to become associated in her mind with sexual relations.

If there must be pain when the hymen is ruptured, let it be done surgically and let the association of pain be with surgical instruments; not with the husband.

The vagina which is large, relaxed or stretched fails to give adequate, normal sex stimulation to both husband and wife and is, therefore, a frequent cause of trouble and dissatisfaction. This is most frequently found after childbirth, but may also be found in cases where there is muscular or structural weakness early in life, or the relaxation which comes with advancing age.

IF each woman would come to the physician with the question, "How can I become a better wife?" as often as she goes to the cooking school with the question, "What can I do to improve my cooking?" homes would be happier.

Remember—Men do not leave home because the biscuits are cold!

If you were told, "Things are not going smoothly in the Jones's home," what is the first thing you would think of? "Another woman" may not be the reason, but we often think of that first. Certainly, that reason comes to our minds before the thought of pancakes not being served often enough. And the first thought is correct in a large number of cases.

The physician who is trained in sex problems can be of more help to the wife than she thinks!

For instance, have you ever noticed that difficulties come into the home at times after a child? Relations should be better; smoother.

Why this trouble? Is it because the husband may have to get up and prepare the 2 A.M. bottle?

Frequently, it is due to an upset in the wife's disturbed sex organs; pain, tenderness, relaxation, stretching, enlargement of the vaginal outlet with resultant decreased response—or it may be fear on her part of an immediate, subsequent pregnancy.

Frequently, the middle-aged, menopause-age wife has sex problems. The home does not run so smoothly; problems arise; husbands are irritable and dissatisfied. As a result, the wife becomes even more nervous and disturbed. "Why," she asks, "after all these years? He always seemed perfectly satisfied before. Why should trouble come now? There have not been any recent pregnancies, nor any pelvic disturbances to cause sex trouble or maladjustment. Could it be a sex factor?"

The stretching of the vaginal outlet which occurred at delivery many years before is more noticeable now because of two main reasons: 1. The muscular tissues are not so strong as they were in the past years. All of the muscles are weaker; tissues are relaxed over the entire body

and this is especially noticeable here. (Just as bladder injuries may not be noticed so much until the woman reaches 45 or 50—when poor urinary control is reported.) 2. The second reason which is often found in middle-age sexual difficulties is: The husband is getting older, too! More sexual stimulation is required for the husband later in life than was necessary in his sex-prime. Thus, he may blame the wife for his decreasing potency and unsatisfactory results. In these cases, perineal repair (a few vaginal sutures) is effective—if done in combination with adequate advice. Such advice is more effective if given early; before there have been repeated unsatisfactory incidents, with their resultant unfavorable association.

Instruction and correction keep up the morale of the wife; keep her younger (psychologically); keep her from feeling neglected or unwanted; keep up the warmth of affection and enthusiasm before the ugly wedge of dissatisfaction, doubt and criticism begins to enter and destroy.

If the wife can be assured that she is wanted, her emotional stability is improved; her morale is boosted.

THREE additional factor in late marital discord which must be considered: Strong marital ties depend not only on the physical side of the relation, but also upon the strength of the spiritual bonds which have been strengthened (or gradually weakened) during the years.

The alert physician will keep in mind these forces and factors. As age advances the physical side of life wanes; spiritual values must be there and should, therefore, be carefully nurtured and strengthened in early life.

A young bride-to-be, or a wife, receives a great deal of miscellaneous advice concerning the marital life. Unfortunately, the well-meant advice may be quite incorrect and prove confusing rather than helpful. You may be told, for instance (with a kindly pat on the back), that, "This matter of sex is, of course, a nuisance to the wife; it is something to be tolerated—like a good sport; it will never mean anything to you." You may be told,

with the sigh of a martyr, to "put up with it the best you can."

This is all absolutely wrong. The normal wife does experience pleasure; should expect to enjoy the sex relation—and if she does not she should know that something is wrong; that the intelligent thing to do is to seek advice that is scientifically correct to follow through by making any correction that is needed.

Interest and enthusiasm are important in anything and everything that we do. We all like to do things with those who show enthusiasm. One doesn't enjoy playing golf with a partner who wishes she were back home doing something else. It may be necessary at times to *feign* an interest or enthusiasm which is not felt—as a gracious gesture to one's partner; to insure that partner's pleasure in our companionship. This synthetic brand of enthusiasm will, however, wear very thin if continued. As a lifetime procedure, it becomes transparent and obvious and a failure.

THE wife or the wife-to-be frequently asks advice concerning the frequency of sexual intercourse. She often expects a numerical answer: Once, twice or four times a week. The correct answer must be varied, but, in general, the answer should be, "Just as frequently as possible," or, "The more frequently the better." This, naturally, depends upon mutual desire. But the clever wife *seeks the opportunity*. She does not postpone it. There are times when full response on her part is better when the interval is not too close. But the more frequent the intercourse, the stronger the bond between husband and wife; the more he depends on his wife; the more his wife depends on him.

She must seek to increase that need and to strengthen that tie!

Each time that the idea of sex comes up in married life, it ends in one of two ways; either favorably, thus increasing the link, the bridge, the tie, the bond, the hold between husband and wife—or it ends unfavorably. What then?

Each unfavorable ending acts as bricks piled up between the husband and wife, until finally they find themselves entirely

separated by a wall of dissatisfaction.

The choice is almost entirely up to the wife!

Make it a bond; a tie.

Make it frequent; make it strong!

ILLUSTRATIONS may convey one idea well, but will not hold up under complete comparison. This may be said about illustrations comparing the food to the sex instinct, which are helpful and appear to convey an idea to the wife if carefully, objectively considered. The food urge and the sex urge being instincts, are put there for a reason. Reactions and attitudes may in general be similar. A woman's attitude to food may help clear up certain points.

For instance: Suppose you knew your husband wanted fruit, cereal, several pieces of toast, 2 eggs, 2 cups of coffee for breakfast—and all you wanted was orange juice. Would you go down to the table and say, "Orange juice, that's all I want; that's all you get."

As a rule, the wife sees clearly how foolish the above attitude would be about food. It is surprising how many times she uses the same attitude in conducting her sex life!

Or suppose you knew your husband would return from work at 6 o'clock and would like his dinner at 6:05. You would very likely wish to please him by having a tasty dinner on the table. And suppose that, on one occasion; he would sit about for a while and then say, "I'm getting hungry. How about some dinner?" And you would answer, "Dinner? Yes, I suppose we could have some dinner. But you had a good breakfast and a good lunch today, and dinner last evening—I didn't think you'd want any more to eat tonight."

"Foolish," you say to me. But you would be surprised at the number of times wives show that exact attitude toward sex.

Husbands, as a rule, show a certain regularity in their sex life which is similar to the cyclic food urge. The intelligent wife will think this through and adjust herself; the indifferent wife (who will be sorry) ignores it.

The clever wife anticipates all of her husband's particular characteristics and de-

sires. She anticipates, plans and arranges. The other continues to make, over and over, the same old "unplanned dinner" error.

Again, the wife would consider herself very inept if she awakened her husband in the morning with, "Do you want breakfast this morning? What do you want for breakfast? How do you want your eggs? Do you want one or two eggs? Do you want coffee or tea?"

All of those facts and preferences have been considered and settled long before; a decision has been *subtly* reached. You know that he wants breakfast; how many eggs he wants and how fixed. You have previously considered the matter because you have considered it important enough to be given careful and complete consideration.

Compare your attitude here between the two!

Few women realize that men can have intercourse only a certain number of times. If the good wife arranges things properly, she should have no further concern.

If the wife prepares a full breakfast and makes it attractive enough, she need not worry about the husband stopping for something to eat down the street. If he has just eaten a stack of hot cakes, he is not interested in more food immediately!

In some cases, the sex factor may be considered as basic and as simple as that.

The general attitude of seeing to it that the husband eats well and enjoys his food at home has never occurred to many women as being applicable to another phase (sex) of life.

Remember the well-eaten breakfast attitude!

THE subject should be summarized:

1. What can the wife do?
 - a. The problem is physical
 - b. Medical advice should be sought
 - c. Pelvic or structural abnormalities should be corrected
 - d. Mental and emotional barriers should be faced and overcome
 - e. Complete, scientific advice is important

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THE CHEMICAL BASIS OF INHERITANCE

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RECENT research, carried out at Edinburgh by Dr. E. Stedman, has added very considerably to world knowledge of the cell nucleus and has also demonstrated the error of certain earlier work on the subject. The most important features of this British research are the identification and isolation of a major constituent of the nucleus, chromosomin, which has been completely overlooked by all previous workers, and a suggested role for this new substance in the mechanism of inheritance.

A typical living cell, whether it forms a complete organism such as an amoeba or is merely a single unit of the many millions of cells which form the bodies of higher animals, consists essentially of two components, each itself highly complex. There is the outer, living cytoplasm and embedded in this is the cell nucleus. The nucleus has several very important functions. In the first place, it coordinates the many chemical and physical changes which occur in the cytoplasm. Secondly, the chromosomes contained within the nucleus are the carriers of the hereditary factors which determine the characteristics of the individual.

IN view of the great importance of the nucleus it is surprising that so little is known of its chemical nature. Indeed, until quite recently no fundamental advance had been made on the pioneer work of Miescher, carried out at the end of the last century. The existence of this serious gap in our knowledge is due, at least, in part, to the practical difficulties of separating nuclei, except in special cases, from the surrounding cytoplasm. These practical difficulties are now being solved by Dr. Stedman and discoveries of far-reaching importance have been made.

To understand the new discoveries something must be said of the work of Miescher. His research was done with pus cells obtained from soiled surgical dressings. From nuclei isolated from pus cells he obtained an acidic substance, now known as desoxyribose-nucleic acid. This is a complex substance, containing nitrogenous constituents linked with phosphoric acid, but the broad details of its structure have now been worked out. So far as is known the nucleic acid contained in the nuclei of all living cells is of unvarying composition.

In his later researches Miescher worked with salmon sperm. He recognized that the heads of spermatozoa are specialized nuclei and this material is particularly suitable for experimental work because the proportion of cytoplasm to nuclear material is small. He dissolved the tails of the spermatozoa in dilute acetic acid and from the remaining heads extracted the fatty substances by means of hot alcohol. In this way he obtained practically pure nuclei. From this material he isolated two compounds, both apparently pure, namely, protamine and nucleic acid. The latter has already been mentioned; protamine is now recognized as a simple protein possessing strong basic properties. Miescher considered that in the nucleus the basic protein combined with the nucleic acid to form a salt-like compound—protamine nucleate. This substance apparently accounted for nearly all the dry weight of the nucleus.

Later work by Kossel and others fostered the belief that nuclei of fish sperm consisted almost entirely of protamine nucleate. In certain cases, e.g., the nuclei of the red blood corpuscles of birds, the protamine was replaced by another simple basic protein, histone.

Stedman has demonstrated that certain of these conclusions are incorrect. While all cell nuclei undoubtedly contain nucleic acid and histone (or protamine) these do not in fact account for the whole of the solid material. He has found a third constituent, chromosomin, in every type of nucleus examined for it and has closely investigated its properties.

CHROMOSOMIN is a complex basic protein with a molecular weight much greater than that of histone. It is most readily obtained from fish sperm, but techniques are now worked out for extracting it from nuclei of other types. It has been found that the nuclei can be isolated from the cells of various kinds of minced tissues by treatment with dilute acid. By various complicated procedures, mainly mechanical, such as centrifuging, the free nuclei can be separated from the debris of cytoplasm. A method has been evolved for estimating the relative amounts of nucleic acid, chromosomin and histone (or protamine) in the isolated nuclei. The following data are based on figures given by Stedman.

Source of Nuclei	Histone and/or Protamine	Nucleic Acid	Chro- mosomin
Ox spleen	16	34	50
Calves' thymus	21	44	35
Cod sperm	12	28	60
Chick embryo	3	35	62
Tumor	2	26	72

These nuclear constituents are believed to be of particular significance in cell division. Very briefly, cell division or mitosis takes place in the following way. First the chromosomes become visible as fine threads in the nuclear sap. These then contract into spirals and become arranged on the equator of a structure known, from its shape, as the spindle. Each chromosome then divides longitudinally into two identical chromatids which then separate and move to opposite ends of the spindle. The cytoplasm then divides into two parts, one surrounding each group of chromatids, and thus two cells are formed.

The chromosomes were until recently supposed to consist essentially of nucleic acid, but it now seems much more likely that their main constituent is chromosomin, combined with smaller quantities of either or both of the other nuclear constituents. While the nucleic acid of nuclei appears to have an unvarying composition, this is not true of chromosomin. The chromosomin derived from the nuclei of different species possesses many characteristic properties but is not of absolutely fixed composition. This is to be expected of a substance forming the chromosomes, since these carry the hereditary factors, usually associated with genes. Chromosomin can be regarded as the chemical basis of inheritance, varying in composition from species to species. Lesser variations in the composition of the chromosomin account for the differences between individuals of the same species. On this theory the genes represent regions on the chromosomes consisting of chromosomin with a specific organization.

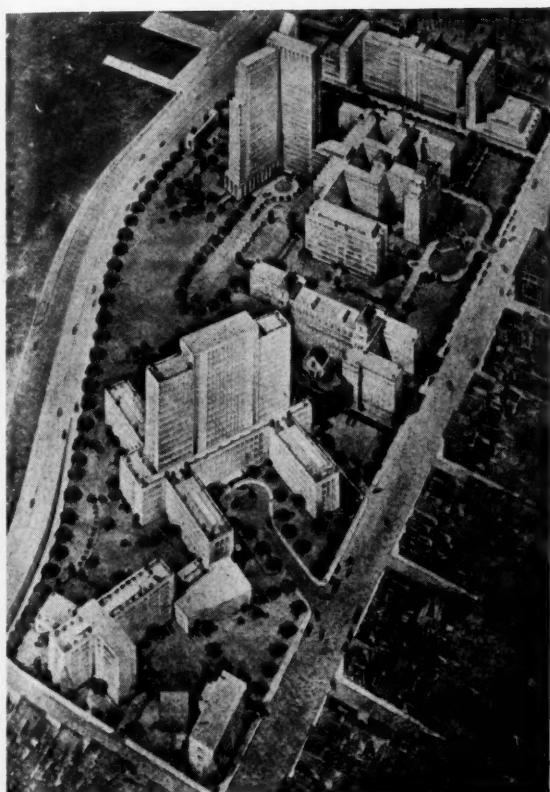
THESE possibilities have an obvious relation to the study of cancer. The characteristic of this disease is the active reproduction of cells which normally stay in the vegetative state. It is striking that their histone content is very low and comparable with that of other cells in a state of active division (see table). A cell might be expected to become malignant as a result of any circumstance which reduces the histone content below a certain level.

These speculations cannot be expected to have any immediate effect on cancer treatment. The source of the histone of cells is at present unknown, though it has been suggested that the lymph glands are the site of manufacture. These produce large quantities of mobile cells known as lymphocytes to which no definite function can be ascribed. These are carried by the lymph and blood to all parts of the body. A characteristic of the lymphocytes is the

—Concluded on page 30

CULTURAL MEDICINE

A GREAT NEW MEDICAL CENTER



Air view (architect's drawing) of proposed New York University-Bellevue Medical Center between 25th and 34th Streets, First Avenue and East River Drive, Foreground, buildings of \$15,000,000 New York University project; background, city's \$12,500,000 Bellevue rebuilding project. Below College of Medicine, Hospital, Clinic and Auditorium seen from First Avenue.

WE are at the beginning of a new era in medicine. Recent phenomenal progress in medical research, combined with battlefield knowledge gained by American doctors, assures this development.

It is, therefore, timely that New York University College of Medicine and Bellevue Hospital unite in a building program which will result in a great Medical Center on New York's East Side.

Bellevue Hospital is embarking on an immediate post-war reconstruction program that will place it at the front of American hospitals—a modern institution perhaps surpassing anything of its kind in the world. Students and physicians will be attracted to this hospital from far and wide. The College of Medicine of New York University must be ready to offer these students and physicians the research facilities and instruction that modern medicine requires.

The Council of the University is, therefore, preparing to build a new College of Medicine to extend for four city blocks, immediately north of Bellevue Hospital, along the East River Drive. Together the two developments will form a Medical Center equipped for service in maintaining the health of a metropolitan population of 13,000,000 people.



CONTEMPORARY PROGRESS MEDICINE

Differences in the Nature of Antibacterial Action of the Sulfonamides and Penicillin and their Relation to Therapy

C. M. MACLEOD and E. R. STONE, (*Bulletin of the New York Academy of Medicine*, 21:375, July 1945) present experimental and clinical evidence showing that the sulfonamide drugs are strictly bacteriostatic and the development of specific immunity is necessary for their most effective action in the treatment of infections. Penicillin, however, has a direct bactericidal effect, both in the test tube and in the animal body, and its therapeutic effectiveness is not as dependent on the development of immunity as that of the sulfonamides. Such specific immunity may, however, be a useful adjunct in penicillin therapy. *In vitro* tests of the susceptibility of the infecting organism to the sulfonamides and to penicillin are of value in determining treatment, but equal and marked susceptibility of bacteria *in vitro*, even of members of the same species, does not necessarily mean that infections caused by these bacteria will respond equally well; this is especially true of the pneumococcus types I, II and III. A previously susceptible strain of bacteria may develop resistance to the sulfonamide drugs during treatment (sulfonamide-fastness). This has been repeatedly observed in staphylococcal and gonococcal infections especially. A strain of bacteria "fast" to one of the sulfonamide drugs is also fast to other drugs of this group, but not to penicillin, which may be used in the treatment of such sulfonamide-fast infections. Penicillin fastness occurs less frequently and develops more slowly. In infections that respond poorly to sulfonamide therapy, the possibility of sulfonamide-fastness should be kept in mind and the susceptibility of the infecting organism tested *in vitro* against the sulfonamides. Sulfonamide therapy is often ineffective in local purulent infec-

tions, even if introduced directly into the lesion; this may be attributed to the presence of sulfonamide inhibitors, an unfavorable pH of the pus, development of sulfonamide fastness, and the absence of specific antibody and functional phagocytes. In localized purulent infections due to staphylococci, the sulfonamides though of little value in the treatment of the local lesion, may be "lifesaving" in preventing overwhelming systemic infection. Most of the sulfonamide drugs pass into the cerebrospinal fluid readily, and hence meningitis can be treated with these drugs without intrathecal administration. Penicillin, though active against the meningococcus, does not enter the cerebrospinal fluid in effective amounts after intravenous or intramuscular injection. Penicillin has an immediate antibacterial action when given in effective dosage, but with the sulfonamides, there is a characteristic "lag phase," which may be of importance in determining which drug to use in certain infections.

COMMENT

Careful attention to the details described in this article would enhance our therapy of infections. As a matter of fact one cannot treat infections scientifically without a study of antibacterial action.

M.W.T.

Resumé of Eight Hundred Cases of Early Syphilis Treated by the Five-Day, Slow-Drip Method

G. W. BOWMAN and P. E. HUMPHREY (*Journal of the Indiana State Medical Association*, 38:259, August 1945) report 800 cases of early syphilis treated with arsenoxide (mapharsen) given by the slow-drip method for five days. The usual dosage was 1200 mg. arsenoxide; but 172 patients were given less than 1200 mg. Most of the patients had active primary or early secondary syphilis, but there were

a few cases of early latent syphilis in pregnant women. In the early part of the series arsenoxide by the slow-drip method was the only treatment employed, but in most cases (570 cases) bismuth was also given by intramuscular injection. There were 4 deaths during treatment (a mortality of 0.5 per cent); 3 of these deaths were due to encephalopathy; one death occurred in a chronic alcoholic who showed degenerative liver changes. Good results, i.e., clinical cure and all serological tests negative, were obtained in 51 of 56 primary sero-negative cases, in 121 of 206 primary sero-positive cases, and in 251 of 538 early secondary cases. Satisfactory results, i.e., clinical cure but not all serological tests completely negative, were obtained in 52 of the primary sero-positive cases and in 171 of the early secondary cases. There were 20 clinical relapses within 12 months, all but one occurring within six months, 20 cases of reinfection and one of probable reinfection. Of the women treated during pregnancy and delivered since completion of treatment, 67 have living children, 64 of whom have no signs of syphilis (sero-negative) and 3 are positive; 9 children have died, 4 of whom were syphilitic; there was one stillbirth and one miscarriage at three months. The slow-drip, five-day method of treating early syphilis with arsenoxide has been employed for more than five years, and the authors are convinced that the high percentage of successful results obtained in cases with prolonged follow-up

(up to fifty-four months) shows that there is a definite place for this method of treatment especially in early infectious cases. In these cases, the method, which requires hospitalization, accomplishes quarantine and adequate treatment simultaneously.

COMMENT

One great difficulty in evaluating therapy of this kind is the forming of correct judgments on future developments of the disease. The authors have followed their patients up to 54 months with favorable results.

M.W.T.

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Cobra Venom in the Treatment of Angina Pectoris

A. S. FREEDBERG and J. E. F. RISEMAN (*New England Journal of Medicine*, 233:462, Oct. 18, 1945) report the use of cobra venom in 12 patients with angina pectoris.

Those whose angina pectoris was of coronary arteriosclerotic origin, had been under observation at a special clinic for two months to seven years, 9 patients for two years and over. During this period of observation, the frequency of attacks was recorded; the amount of work that could be performed was established by repeated standardized exercise-tolerance tests. Four of the 12 patients responded "strikingly" to many different forms of treatment, including nitroglycerin; these were classified as "marked reactors," Group 1. Three patients showed only moderate response to therapy, "moderate reactors," Group 2. Five patients failed to respond to any of the usual methods of treatment, "nonreactors," Group 3. Cobra venom

was given by intramuscular injection (deltoid muscle) in doses of 10 to 20 mouse units (1 to 2 cc.) at least once daily for three to seven days. This resulted in a 25 to 75 per cent increase in exercise tolerance in the standardized test in 7 of the 12 patients, including 3 of the Group 3 patients. In 2 of the patients in Group 3, cobra venom was the only drug out of 57 tested that had any effect on exercise tolerance or effected any demonstrable clinical improvement. Electrocardiographic studies in 2 of the 7 patients showing improved exercise tolerance after treatment with cobra venom indicated that this therapy did not affect the electrocardiographic changes observed after exercise. It was found that the most effective dosage of cobra venom was three injections of 10 mouse units each on the first day, then one injection daily for seven days; to maintain the effect biweekly injections were subsequently necessary. Local pain occurred at the site of the injection, but was not severe enough to make it necessary to discontinue treatment. With the dosage recommended, there were no toxic symptoms; but if the dosage was increased to 20 mouse units, toxic symptoms developed.

If the drug was discontinued after the initial course of treatment, repetition of the treatment gave good results in several cases. In the patients in Group 1, who showed marked response to nitroglycerin, cobra venom was no more effective, and usually less so. It is of definite value, however, in cases who do not respond to other methods of treatment. Electrocardiographic studies indicate that cobra venom does not affect the underlying processes that are responsible for the angina, i.e., "the discrepancy between the demands of the myocardium and the supply of blood." Cobra venom apparently acts by preventing the patient from feeling pain, and in this way, is comparable to surgical procedures to interrupt sensory nervous pathways; and is best employed as a substitute for such surgery when it would otherwise be indicated.

COMMENT

Well worth trying in stubborn cases.

M.W.T.

Ventricular Tachycardia

S. L. ZIMMERMAN (*Annals of Internal Medicine*, 23:634, Oct. 1945) reports 10 cases of ventricular tachycardia occurring in a Veterans' Administration Hospital among veterans of World War I. The ages of these 10 patients ranged from 46 to 60 years; the tachycardia complicated infarction in 5 cases; 4 patients had coronary disease associated with hypertension and in one patient no underlying heart disease could be demonstrated. There was no history of rheumatic fever in any case. Only one of these patients had had digitalis prior to the onset of the ventricular tachycardia and this patient had been given only 8 cat units in four days. Eight of these 10 patients were treated with quinidine after the ventricular tachycardia had been established; 7 of these patients recovered. In 3 of the patients who recovered, the paroxysms complicated myocardial infarctions. The only death in this group of 8 patients occurred in a patient with a massive anterior wall infarction who was "in a terminal state" on admission. The amount of quinidine necessary to terminate the tachycardia varied greatly from case to case. The smallest dose used was 24 grains in twenty-four hours; the largest amount was 525 grains in a period of nine days. Although relatively large doses of quinidine were given, the only evidence of toxicity was persistent diarrhea and vomiting in one case. Of the 2 patients not treated with quinidine, one reverted to a normal sinus rhythm, the other died within a few hours after admission. From the results obtained in this series and a review of the literature, the author concludes that quinidine is adequate, and even in massive doses, if necessary is indicated in the treatment of ventricular tachycardia.

COMMENT

Sometimes quinidine intravenously is required.

M.W.T.

UROLOGY

Teratoma of the Testis

J. L. BARNER (*American Journal of Roentgenology*, 54:257, Sept. 1945) reports 65 cases of teratoma of the testis treated in an Army general hospital; the average age of the patients in this series was twenty-eight years. Early diagnosis of teratoma of the testis is important; the most frequent symptom is painless swelling (observed in 45 patients in this series); pain was present in 14 cases. In the earlier stages, the testicle is smooth and freely movable; and is usually firm or hard, although cystic areas may be present. In the series reported, surgery followed by irradiation was employed. Orchiectomy was done with removal of the cord with accompanying structures high at the internal abdominal ring. This was followed by roentgen therapy, using daily treatments (except on Sunday) of 200 to 250r to each of two fields, in rotation, with a total dosage of 1,600 to 2,000r per field. A follow-up of these patients showed that 7 have died in the last thirty-three months; 7 are showing symptoms of recurrence; but the majority are well and have returned to work. The author considers the combination of surgery and irradiation superior to either alone in the treatment of teratoma of the testis.

COMMENT

Teratoma testis is one of the most malignant of tumors. Immediate operation is required. My own method is to expose the cord first and tie it off as high as possible in the canal to prevent pressing any of the cancer cells into the blood-vessels or lymph vessels and then enucleate the testis from above. Counter drainage of the scrotum through its pendulous extremity is the last step before dressing.
V.C.P.

Fibrin Foam as a Hemostatic Agent in Suprapubic Prostatectomy

W. C. QUINBY and E. K. LANDSTEINER (*New England Journal of Medicine* 233:267, Aug. 30, 1945) note that in all prostatectomies, by whatever route, the problem of adequate control of

bleeding is important and difficult. They have recently employed fibrin foam soaked in thrombin for control of bleeding in 12 cases of suprapubic prostatectomy (one stage). The foam, after saturation with thrombin, was used in pieces of convenient size, and held in place on the bleeding surface by a pledge of gauze over which negative pressure was made by suction through a tube. Clotting and adhesion of the foam occurred in five to six minutes with this pressure; when the prostatic bed was satisfactorily dry, which occurred on the average in ten to twenty minutes, the bladder was closed, with a small mushroom catheter (No. 18 Fr.) in the upper angle of the wound, so adjusted that the intravesical portion was as far as possible from the area of operation. In one case, two rather large "spurters" were controlled by a stitch, before the foam was used; otherwise no other hemostatic agent was employed. In all cases the control of bleeding by the fibrin foam was "entirely adequate" and no secondary bleeding occurred.

COMMENT

Bleeding after prostatectomy is a great problem because after it has seemingly stopped coughing and vomiting during the recovery from the anesthetic may start it up again. Therefore any local application such as fibrin foam offers a very strong invitation to use it and considerable promise of success.

V.C.P.

Cystoscopic Treatment of Stones in the Ureter

R. L. DOURMASHKIN (*Journal of Urology*, 54:245, Sept. 1945) reports that in a series of 1,550 cases of stones, at all levels of the ureter and renal pelvis, 1,253 were treated by cystoscopic manipulation, which resulted in expulsion of the stones in 1,171 cases (93.5 per cent). There was no death resulting from the instrument, and no case of rupture of the ureter. The series of cases reported is divided into two groups, according to the size of the stone: Group A, 689 patients with small stones, less than 5 mm. in width; Group B, 564

patients with large stones, 5 mm. and more in width. In Group A, passage of the stone resulted from the cystoscopic manipulation in 99.7 per cent of cases; in Group B, in 85.9 per cent. In both groups the principle of providing ample room for the passage of the stone at and below its level was followed. In the small stone group, the passage of an ordinary catheter, whether left indwelling or not, was sufficient to attain this result and secure passage of the stone in many cases. But in a few cases in this group and in the group with large stones, the author's metallic bougies were used for dilatation of the lower ureter and rubber bags at the higher levels. The metallic bougies were used only in the lower 5 to 6 cm. of the ureter. The metallic bougie is threaded "head first" through the middle compartment of an operating telescope that is passed through the cystoscope. The cystoscopes employed are provided with the author's modification to facilitate the passage of bulky instruments; it consists in a slant at the distal extremity of the cystoscopic sheath over which the metallic bougie slides easily. In some cases in which dilatation with the metallic bougie below the stone did not result in dislodging it, the passage of multiple catheters alongside the stone resulted in a shift of its axis and easy expulsion through the well-dilated ureter. The rubber bag dilator is employed for stones situated in the upper 20 cm. of the ureter and small stones in the renal pelvis of suitable size and shape for passage through the ureter. After the bag is introduced to the desired level, it is dilated with fluid using a tuberculin syringe which must fit the catheter very tightly; the amount of fluid used is measured in minims; the extent of dilatation is guided chiefly by the sense of resistance. If the introduction of 5 to 6 minims elicits resistance, repeated inflation and deflation of the bag should be carried out until 3 to 4 more minims can be introduced. The position of the bag and degree of dilatation should be determined roentgenographically, using a 50 per cent solution of sodium iodide, but subsequent dilatations are done with sterile water. The dilatation is carried

out centimeter by centimeter through the length of the ureter below the stone. When the stone descends into the lower 5 cm. of the ureter, the metallic bougies may be used for dilatation. The great majority of patients were ambulatory during treatment. The author considers the methods described superior to forcible extraction of stones with the ever present likelihood of grave injury.

COMMENT

When one considers the degree of dilatation which megaloo-ureter may reach, one realizes at once how feasible delivery of stones by dilatation is. By passing the olivary metal bougie first and then the cystoscope threaded over its shaft I have passed a 24 F. bougie up to the stone, and through the constriction, followed by delivery of the stone. Of course the whole treatment was deliberate, protracted and gentle.

V.C.P.

Penicillin an Adjunct in Nephrolithiasis

H. BODNER and M. K. MOULDER (*Journal of Urology*, 54:123, Aug. 1943) state that the primary purposes of treatment of urinary tract calculus are: To establish adequate drainage; to eradicate the urinary infection and eliminate foci of infection; to change the pH of the urine in "pure" acid or alkaline calculi; and to correct metabolic disorders, e.g., high vitamin A and acid ash diet in alkaline calculi. In the case reported there were recurrent calculi associated with a *Staphylococcus albus* infection; the urine was highly alkaline and the pH could not be changed to the acid side by any method of treatment, including frequent irrigations of the renal pelvis with the Suby-Albright solution "G". Finally penicillin was given by intramuscular injection because of the persistent staphylococcal infection. After the first course of 200,000 units, the urinary pH changed to the acid side, and remained acid, although *Staphylococcus albus* was still present. An additional 500,000 units were given before the urine was sterilized. Surgical removal of calculi and pyelostomy had been done on both kidneys and follow-up study with pyelograms

showed relatively normal kidneys with good emptying. There was no evidence of any focal infection other than in the genito-urinary tract in this case. Nine months after discharge from the hospital the patient was in good health and showed no signs of recurrence of the urinary tract infection or renal calculi.

COMMENT

Obviously the origins or causes of stones must be reviewed before any results can be attained. Obviously also the origin or cause of unsatisfactory results is the failure of so many patients to stick on the job of altering those habits of life which in themselves frame the whole picture. Too many patients live on the plan that disease is like a nail in a board—to be pulled out with a special claw-hammer and then forgotten. The quick-cure instinct of human beings is our chief obstacle in my opinion to better final results. V.C.P.

Renal Carbuncle; A New Method of Treatment

T. P. SHEARER, T. B. WIPER and J. M. MILLER (*Journal of Urology*, 54:12, July 1945) note that the diagnosis of renal carbuncle is difficult because of the lack of urinary symptoms. Malaise, sometimes progressing to prostration, chills and fever are the chief symptoms; in almost all cases reported renal carbuncle has been preceded by a cutaneous infection, such as paronychia, boils or carbuncles. In the authors' case, the patient had had several boils on his face and two carbuncles on the neck; subsequently he developed pain in the lower chest and abdomen on the left side, and fever of a septic type. Gradually tenderness in the left costovertebral angle developed and intravenous urography showed compression of the caliceal structures of the left kidney. A diagnosis of left perinephric abscess was made, and surgical exploration was done without finding an abscess. The surgical wound was healed when the patient came under the authors' observation. Pain and fever persisted and there was moderate tenderness in the left upper quadrant, and enlargement of some of the lymph nodes in the inguinal regions and intercostal spaces. Urinalysis gave entirely normal results. Biopsy of one of the

lymph nodes showed chronic inflammation, and culture of material from this node yielded *Staphylococcus aureus*. Retrograde pyelography showed the middle and lower calices of the left kidney to be smaller than normal and displaced medially. This indicated the presence of an expanding mass in the lower part of the left kidney; as the previous exploratory operation for perinephric abscess had yielded negative results, it seemed probable that the abscess was deeply placed in the substance of the kidney—a renal carbuncle. At operation the kidney was freed to the hilar structure and carefully palpated; an aspirating needle was passed into several "suggestive areas," and purulent material was obtained from an area deep in the substance of the kidney; further needle punctures delineated the cavity. It was opened with a ureteral scalpel and 10 cc. of thick purulent material drained off; a No. 16 F. catheter was then sutured into the cavity. One Penrose drain was placed at the upper pole of the kidney and one at the lower pole and the wound closed in layers. Penicillin was given by intramuscular injection in a dosage of 200,000 units daily; in addition the abscess cavity was lavaged twice daily with 5 cc. of a penicillin solution containing 250 units per cc. A scanty serous discharge persisted for about three days after which the wound healed nicely. The temperature became normal and the patient's general condition improved rapidly. Retrograde pyelography twenty-five days after the operation showed the caliceal structures normal. By this method of treatment cure was effected and healthy renal tissue preserved. Simple incision and drainage have not previously given such good results in renal carbuncle. The authors report this case with the hope that this method of treatment may be tried in other cases of renal carbuncle.

COMMENT

The outstanding point of this case is the rapid and stable response to penicillin, systemically and locally. Such results stimulate our hopes that penicillin has not yet reached its limits of reliability and service. So far it has shown very few disadvantages. V.C.P.

Medical BOOK NEWS



RICHARD WISEMAN
1622 ~ 1676

Classical Quotations

• For my part, I have thought it no disgrace to let the world see where I failed of success, that those that come after me may learn what to avoid. . . . Thou wilt also learn one necessary piece of Humility, viz., not to trust too much in thy own judgment, especially in difficult cases, but to think fit to seek the advice of other Physicians or Chirurgeons, whose long experience hath enabled them to assist thee to go on in the work, or forewarn thee of the danger.

RICHARD WISEMAN

A Treatise of Wounds. 1676.

Diseases of the Blood

Clinical Hematology. By Maxwell M. Wintrrobe, M.D. Philadelphia, Lea & Febiger, [c. 1942]. 8vo. 793 pages, illustrated. Cloth, \$10.00.

THIS textbook on blood dyscrasias is of value to the general practitioner as well as to the physician interested in disturbances of the blood. It deals with the subject in a thorough manner and represents a leading authoritative volume written by a student of hematology.

EUGENE R. MARZULLO

Plaster of Paris in Surgery

Plaster of Paris Technic. By Edwin O. Geckeler, M.D. Baltimore, The Williams & Wilkins Co., [c. 1944]. 8vo. 220 pages, illustrated. Cloth, \$3.00.

IN its scope this handbook covers the subject of plaster of Paris, its preparation, its application, and the special methods that make for success in its use on the extremities and the trunk, including the spine.

The author is qualified to speak with

Edited by
ALFRED E. SHIPLEY, M.D., Dr. P.H.

All books for review and communications concerning Book News should be addressed to the Editor of this department, 1313 Bedford Avenue, Brooklyn 16, N. Y.

authority because of his long experience in the use of plaster. The text is well illustrated, well printed, well arranged, and even has an index. This book is of value both to the master surgeon in his use of plaster and, more outstandingly, to the less experienced operator.

ROBERT F. BARBER

Constitutional Pathology

Constitution and Disease. Applied Constitutional Pathology. By Julius Bauer, M.D. 2nd Edition. New York, Grune & Stratton, [c. 1945]. 8vo. 247 pages, illustrated. Cloth, \$4.00.

IN the second edition of this little book, aptly sub-titled *Applied Constitutional Pathology*, Julius Bauer emphasizes the importance of considering the patient as a constitutional whole. He shows how important it is to understand all of the constitutional factors in the given case before considering the individual organ which is involved in the disease process.

An extension of the attitude advised by Bauer is to be found in the emphasis placed today on the psychosomatic elements of disease. The author considers these relationships and it is to be hoped that someday he will write a book which will consider both the physical and the psychic constitutions of the patient. This book is recommended as an introduction to the study of constitutional pathology.

MILTON PLOTZ

Musser's Internal Medicine, Revised

Internal Medicine, Its Theory and Practice, In Contributions by American Authors. Edited by John H. Musser, M.D. 4th Edition, Revised. Philadelphia, Lea & Febiger, [c. 1945]. 4to. 1518 pages, illustrated. Cloth, \$10.00.

THIS work represents a volume of 1500 pages, in which 33 leading medical authors and recognized authorities, present

the subject matter concisely and in a standard manner. It is valuable and interesting as a text because of the numerous contributors—each a recognized student and authority on the subject presented. References are included. This text is useful in daily practice because of its thorough, concise, and to the point presentation.

EUGENE R. MARZULLO

Injuries to Peripheral Nerves

Peripheral Nerve Injuries. Principles of Diagnosis. By Capt. Webb Haymaker, M.C., A.U.S., and Maj. Barnes Woodhall, M.C., A.U.S. Philadelphia, W. B. Saunders Co., [c. 1945]. 8vo. 227 pages, illustrated. Cloth, \$4.50.

THE present World War as well as the last War has focused attention upon the subject of injuries to the peripheral nerves. It should be remembered however that such injuries are extremely prevalent during peace time and that, unfortunately, they are too frequently unrecognized.

This book represents a remarkable compilation of factual knowledge concerning the anatomy and physiology of the peripheral nerves and utilizes this information in dealing with the clinical aspects of nerve injuries. All extraneous information has been judiciously deleted. The diagrams and photographs throughout are frequent, clear and to the point.

This book can be just as useful to the doctors at home as to the physicians in Service.

RICHARD GRIMES

British Minor Surgery

Minor Surgery. Edited by Humphry Rolleston and Alan Moncrieff, New York, Philosophical Library, [c. 1944]. 8vo. 174 pages, illustrated. Cloth, \$5.00.

THIS handbook of Minor Surgery is really a collection of eighteen monographs by various authors from the British Empire. The method employed by the authors in choosing the subject matter to be covered is difficult to understand as it shows no system. Subjects are chosen apparently helter skelter through the field of surgery—general surgery, minor surgery, and specialties. The subjects covered are well presented and the authors are com-

petent and speak with authority. Perhaps in another edition an attempt will be made to systematize the subjects covered in *Minor Surgery*.

ROBERT F. BARBER

War Surgery

Surgery of Modern Warfare. Edited by Hamilton Bailey, F.R.C.S., Sub-Editor for Medicine, C. Allan Birch, M.D. Compiled by Seventy-seven Contributors. Vols. I & II, 3rd Edition. Baltimore, Williams & Wilkins Co., [c. 1944]. 8vo. 1108 pages, illustrated. Cloth, \$20.00 per set.

THIS is the third edition, the first appearing in parts, in 1941. In 1942 the second edition was presented in two volumes. The many changes and revisions that have been made in the present two volumes, indicates the rapidity of improvement in technique and the various methods of handling the many varieties of injuries and complications in modern warfare.

There are over seventy contributors and the entire human body is considered from the war point of view, that is, various types of enemy gunfire, shrapnel balls, bombs, hand grenades, bayonets, trench clubs, flame throwers, et cetera, are discussed. Every type of wound to soft and bony tissue is studied. Practically every variety of infection is taken up from a bacteriological point of view, and the more modern concepts in combating these various infections are thoroughly discussed; in fact, the contribution on bacteriology of wounds is made by Dr. Alexander Fleming, the discoverer of penicillin.

Considerable space is given to first-aid treatment methods, such as, methods of applying the tourniquet, the injection of morphine, placing the patient upon the stretcher with various types of injuries. This should be of exceptional benefit to the medical corps men and the civilians, who oftentimes are the first to contact the injured.

The traumatic surgeon, as well as the general surgeon, can glean much from the text and illustrations in these two volumes, although they were purportedly for the war surgeon.

HERBERT T. WIKLE

BOOKS RECEIVED for review are promptly acknowledged in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

Bioenergetics and Growth. With Special Reference to the Efficiency Complex in Domestic Animals. By Samuel Brody, Ph.D. New York, Reinhold Pub. Co., [c. 1945]. 8vo. 1,023 pages, illustrated. Cloth, \$8.50.

First Aid. Surgical and Medical. By Warren H. Cole, M.D., and Col. Charles B. Puestow, M.C., A.U.S. Illustrations by Carl Linden in collaboration with Tom Jones. 3rd Edition. New York, C. Appleton-Century Co., [c. 1945]. 8vo. 351 pages, illustrated. Cloth, \$3.00.

Cinchona in Java. The Story of Quinine. By Norman Taylor. New York, Greenberg, [c. 1945]. 8vo. 87 pages, illustrated. Cloth, \$2.50.

Textbook of Surgical Treatment. Including Operative Surgery. Edited by C. F. W. Illingworth, M.D. 2nd Edition. Baltimore, The Williams & Wilkins Co., [c. 1944]. 8vo. 564 pages, illustrated. Cloth, \$9.00.

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CHEMICAL BASIS

—Concluded from page 20

high histone content of their nuclei, and it is perhaps significant that tissues around tumors are commonly crowded with them. On different grounds, too, the suggestion has been made that malignant growths are associated with an impairment of the lymphoid system.

Stedman's identification of chromosomin as an essential constituent of cell nuclei represents a big step forward in the study of these vitally important bodies. Many of the suggestions made in this note await confirmation by repeated experiments, but the research cannot fail to lead to results of far-reaching importance.

ADVICE

—Concluded from page 18

f. Treatment with general or local medication is at times helpful

g. You, the wife, take the initiative in urging help from your physician. Help him to help you.

SUITE 402-404 PROFESSIONAL BUILDING

IRRITABLE COLON

—Concluded from page 8

ticular significance in the treatment of these cases.

These five principles form a basis for the management of a patient with an irritable colon in the Army. They are equally applicable to similar problems in civilian medicine, particularly industrial medicine.

Summary

1. One hundred and twenty-two cases of irritable colon admitted to an Army General Hospital have been reviewed.

2. Thirty-seven per cent required reclassification to limited duty status.

3. Since many of these patients do not make satisfactory combat soldiers, early recognition of the more severe cases and their prompt reclassification are essential to military efficiency.

4. The principles which are applicable to patients with irritable colons in the Army are equally applicable to those in civilian life.